

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement (IDS) including a Search Report submitted on 09/20/2006 was filed on the filing date of the instant application on 09/20/2006. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Drawings***

2. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5, 7-8 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Schrader et al (US 2002/0166123).

Regarding claim 1, Schrader discloses a system for providing personal broadcast recording channel service using Extensible Markup Language (XML) (paragraph [0055]), which provides Personal Video Recorder (PVR) channel service to a plurality of PVRs over a common network using XML (see Figure 1, Figure 2 and Figure 5), the system comprising:

an interface server (elements 230 and 214 in Figure 2) coupled to provide a PVR channel service user interface (element 524 in Figure 5) so as to allow a corresponding communication terminal to gain access over the common network (element 230 in Figure 2; paragraph [0049], lines 10-12. "API" being used by the broadcast server is interpreted as the common network), and to control data input and output signals for use of the PVR channel service through the interface (paragraph [0039]-[0040], [0048], but not limited to. Broadcast server 214 has the control of input and output data between the server and the clients which are PDAs, cellular phones, or DVRs (for the use of PVR/DVR capability) (paragraph [0038], lines 11-17) through network 230, because this is two-way communication); and

a wizard/transmission server coupled to share an input and stored DataBase (DB) through the interface server (elements 106 and 114 in Figure 1 or elements 206 and 214 in Figure 2 or elements 402 and 114 in Figure 4 as transmission server; paragraph [0039], lines 1-2, paragraph [0069], lines 10-12, and paragraph [0075], lines 1-3, but not

limited to); wherein the wizard/transmission server creates personal PvrXML files using the DB and transmits the created files to the PVRs (paragraph [0047], lines 13-24, paragraph [0054], lines 1-13 and paragraph [0055], but not limited to. "XML-based event logs" or "indices files" are interpreted as PvrXML files).

Regarding claim 2, Schrader discloses the system as discussed in the rejection of claim 1. Schrader further discloses the wizard/transmission server comprises:

- a PvrXML creation module for creating the PvrXML files and detailed information using information of the DB (elements 402 in Figure 4 have one of the functionalities as a creation module; paragraph [0054], lines 1-11, paragraph [0055], lines 3-6, paragraph [0062], lines 6-12, paragraph [0063], lines 1-3, paragraph [0075], lines 4-14, but not limited to);
- a PvrXML editing module for editing the PvrXML files created by the PvrXML creation module (Broadcast server 114 has one of the functionalities as an editing module; paragraph [0073], lines 25-31 and paragraph [0074], lines 5-9, but not limited to);
- a PvrXML transmission module for transmitting the PvrXML files to the PVR over the common network (Broadcast server 114 coupling to elements 402 in Figure 4 has one of the functionalities as a transmission module; paragraph [0067], lines 1-7, paragraph [0075], lines 1-4, but not limited to);
- an Identification (ID) code management module for processing ID codes, which correspond to any one of subscriber information into data to be used by the PvrXML transmission module, and managing the processed data for individual users (Broadcast

server 114 has one of the functionalities as an identification code management module, because the enhanced IP content which broadcast server 114 deliveries to the clients includes "user interface information 326" showed in Figure 3 that contains user identifications, paragraph [0044]-[0045]).

Regarding claim 3, Schrader discloses the system as discussed in the rejection of claim 1. Schrader further discloses the DB is any one of a web DB (paragraph [0070]-[0071], "providers 414" in Figure 4 have their own databases and these providers are the sources of data and services that can be retrieve from the Internet (paragraph [0048])), a detailed information DB ("database 324" in Figure 3) and a service DB that are used to prepare the PvrXML files and the detailed information (paragraph [0069], lines 10-12), and is stored in memory that can be controlled by processors of the interface server and the transmission server (paragraph [0069], lines 10-12; Broadcast server 114 maintains a database, of course, it can control the data stored in database).

Regarding claim 4, Schrader discloses the system as discussed in the rejection of claim 3. Schrader further discloses PvrXML tags stored in the PvrXML tag language DB are at least one selected from a PvrXML group consisting of <list> </list>, tags for selecting a recording list; <title> </title>, tags for showing a title of a selected program title (paragraph [0055]-[0056] for exemplary tagged control data entries of an index file that includes XML-based event logs; paragraph [0144], lines 8-11 for including associated titles in the index file. The event log which uses XML language is also a list

of events. That means the tagged control data includes "list" for the whole list of events and "title" for each event under XML schema).

Regarding claim 5, Schrader discloses the system as discussed in the rejection of claim 1. Schrader further discloses the PvrXML creation module parses any portion of data from a service DB, including a recording scenario in PvrXML format using memory and a processor of the wizard/transmission server (paragraph [0062]-[0063] for parsing a video stream to build an index file; paragraph [0064]-[0065] for additionally providing control files for "intelligent recording", but not limited to).

Regarding claim 7, Schrader discloses the system as discussed in the rejection of claim 1. Schrader further discloses each of the PVRs ("client system 100" in Figure 5) comprises:

a control unit having at least a stream control function ("processing unit 532" in Figure 5; paragraph [0085]);

a Transmission Packet (TP) interface for inputting a broadcast signal to the control unit on a Transport Packet (TP) basis ("signal input 510" in Figure 5; paragraph [0080], paragraph [0040], lines 4-7 and paragraph [0041], lines 10-13 for the "signal input 510" receives digital television programming in compressed format such as MPEG-2 format. Any devices or modules which are able to receive TP data also include TP interfaces); middleware coupled to the control unit to receive control signals configured such that hardware and software of the PVR are operated by the control unit ("CPU 532 and

system bus 536" in Figure 5 has equal function as a middleware. This system bus 536 interconnects various system components, so it receives control signals through user input interface 524, serial port interface 554 and signal input 510. It also couples to CPU 532 and ASIC 534 to operate hardware and software of the client system 100 (paragraph [0085]); and

a PvrXML interpreter coupled to the control unit to interpret at least one PvrXML file received over the common network and parse the interpreter PvrXML file into the control signals (see Figure 16a-16c; paragraph [0128]-[0129] and paragraph [0094]-[0095]; "The data package handling service" and "DVR engine" which reside in the client system 100 have performed equal functionalities as a PvrXML interpreter).

Regarding claim 8, Schrader discloses the system as discussed in the rejection of claim 7. Schrader further discloses an input signal select control unit having electronic circuits or a software algorithm ("user input interface 524" in Figure 5) to perform an intermediation operation of selecting either a first operation of checking an input signal received from an input unit coupled to the control unit, and a control signal received from the PvrXML interpreter (paragraph [0083]), and allowing the middleware to operate a corresponding PVR while displaying operational status of the PVR on a screen (paragraph [0078], lines 18-23 and paragraph [0085], lines 1-11), or a second operation of operating the corresponding PVR in a background of a picture according to the recording scenario of the PvrXML file (paragraph [0078], lines 18-23 and paragraph

[0081], lines 5-9 for simultaneously recording and picture-in-picture viewing capabilities).

Regarding claim 10, Schrader discloses a method for providing personal broadcast recording channel service using XML, the method comprising a client- side process of a PvrXML interpreter of each PVR performing:

the step of receiving a PvrXML file and detailed information (see steps 710 and 712 in Figure 7a and step 740 in Figure 7b; paragraph [0080], lines 1-5 and paragraph [0081], but not limited to), and recording and storing the detailed information on a corresponding storage device (HDD) (paragraph [0085], lines 14-17 and paragraph [0086], but not limited to);

the step of parsing details of script document of the PvrXML file into a control signal for either remote recording or channel guide control of the PVR, and inputting the parsed control signal using middleware (see Figure 7a-7b; paragraph [0094]-[0095], and paragraph [0097]-[0100], but not limited to) ; and

the step of the middleware inputting operational instructions, which corresponds to the input control signal, to a control unit (see steps 718 through 722 in Figure 7a and steps 743 through 745 in Figure 7b; see Figure 5, data goes through system bus 536 and from there goes to other components in the system 100).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schrader et al (US 2002/0166123) in view of Landry et al (US 2005/0203647).

Regarding claim 6, Schrader discloses the system as discussed in the rejection of claim 1. Schrader further discloses the interface is installed in the interface server to support and provide access to web (paragraph [0042], lines 4-5, paragraph [0039], lines 8-11 and paragraph [0048]), Wireless Application Protocol (WAP) (paragraph [0037], lines 1-4 for satellite system, paragraph [0038], lines 13-15 and paragraph [0101], lines 13-15 for the client system is PDA, cellular phone), and channel broadcast (paragraph [0036], lines 4-6).

Schrader does not disclose the limitations of "Automatic Response System (ARS), VoiceXML (VXML) and power line communication schemes".

Landry discloses the limitations of "Automatic Response System (ARS), VoiceXML (VXML) and power line communication schemes" (paragraph [0048] for power line communication; paragraph [0052] for VoiceXML and Interactive Voice Recognition (IVR). IVR system is an improvement of ARS system, So IVR system also includes ARS).



Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Schrader's system with the teaching of Landry, so to provide a variety of communication means for the system.

7. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schrader et al (US 2002/0166123) in view of Son (US 2003/0231859).

Regarding claim 11, Schrader discloses all the limitations of the method as discussed in the rejection of claim 10. Schrader further discloses the client-side process further comprises the step of allowing a menu screen to pop up on a screen of a display device in response to a user's manipulation signal (see Figure 8), and allowing detailed information, which includes advertisement, to be further displayed on the menu screen when a user selects each item from the list (see Figure 10 and Figure 14).

Schrader does not explicitly disclose the limitation of allowing a recording list, which corresponds to the recorded and stored information, to be displayed on the menu screen.

Son discloses the limitations of allowing a recording list, which corresponds to the recorded and stored information, to be displayed on the menu screen (see Figure 3C, also see step S19 in Figure 4; paragraph [0026], but not limited to).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Schrader's display capability with the teaching of Son about ability of display recording list, so to improve the user's viewing experience and to provide the user an easy and effective way to access recorded programs.

8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schrader et al (US 2002/0166123) in view of Park et al (US 2006/0218035).

Regarding claim 9, Schrader discloses a method for providing personal broadcast recording channel service using XML, the method comprising a server- side process of an interface server performing:

the step of a wizard/transmission server preparing recording scenarios based on detailed information related to the analyzed information (paragraph [0047], lines 1-7, paragraph [0064] and paragraph [0066], but not limited to);

the step of creating files in PvrXML format based on the recording scenarios using a PvrXML conversion unit (paragraph [0047], lines 13-24, paragraph [0054], lines 1-13 and paragraph [0055], but not limited to. "XML-based event logs" or "indices files" are interpreted as PvrXML files).; and

the step of transmitting the PvrXML files and the detailed information to corresponding members' PVRs through a common network (paragraph [0039], lines 1-2, paragraph [0049], lines 10-12, and paragraph [0064]-[0066]. "API" being used by the broadcast server is interpreted as the common network);

the step of inputting information about member entry, to a member DB (see element 362 in Figure 3; paragraph [0072], lines 2-4; The Broadcast server 114 receives information of a given viewer and transmits data to the viewer. Scharder's system must also include some kind of storage for storing view's information---this is inherent to Scharder).

Scharder does not disclose the limitations of "receiving and storing information about members' recording preferences from member terminals; processing information based on viewers' analyzed tendencies; extracting keywords from the input information, compiling an index of the extracted keywords, and storing detailed information, that corresponds to the keywords while analyzing the members' recording preferences".

Park discloses the limitations of receiving and storing information about members' recording preferences from member terminals, processing information based on viewers' analyzed tendencies (paragraph [0041], but not limited to); extracting keywords from the input information, compiling an index of the extracted keywords, and storing detailed information, that corresponds to the keywords while analyzing the members' recording preferences (paragraph [0013]-[0014], paragraph [0066], lines 4-11, paragraph [0069], lines 6-13 and paragraph [0071], but not limited to).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Schrader's system with the teaching of Park, so to enable to provide accurately and effectively the programs that are close to user's taste.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GIGI DUBASKY whose telephone number is (571)270-5686. The examiner can normally be reached on Monday through Friday from 7:30am to 5:00pm with alternative Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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